

REMARKS

Applicants respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Objections to the Specification

The abstract has been amended to remove the legal term comprising, thereby overcoming the objection.

Claim Rejections Under 35 U.S.C. § 112

Claims 1-3 are rejected as being indefinite under 35 U.S.C. § 112, second paragraph. The Examiner alleges that the relationship between the matrix resin and the fibrous material is unclear. Applicants believe that the claims as amended should overcome this rejection because a prepreg is known in the art to be a fibrous material impregnated with a resin. In fact, the word prepreg is short hand for preimpregnated. See Appendix 1, definition of Prepreg from the website About.com. This is also supported by the specification at page 6, lines 16-22 and original claim 7.

Moreover, according to MPEP § 2173.02, the test for definiteness under 35 U.S.C. § 112, second paragraph, is whether “those skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). If the language of the claim is such that a person of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement, a rejection of the claim under 35 U.S.C. § 112, second paragraph, would be appropriate. See *Morton Int’l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470, 28 USPQ2d 1190, 1195 (Fed. Cir. 1993).

This same section of the MPEP notes that a claim term that is not used or defined in the specification is not indefinite if the meaning of the claim term is discernible. *Bancorp Services, L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1372, 69 USPQ2d 1996, 1999-2000 (Fed. Cir. 2004) (holding that the disputed claim term “surrender value protected investment credits” which was not defined or used in the specification was discernible and hence not indefinite because “the components of the term have well recognized meanings, which allow

the reader to infer the meaning of the entire phrase with reasonable confidence”). See also *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366, 71 USPQ2d 1081, 1089 (Fed. Cir. 2004) (“The requirement to ‘distinctly’ claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principles....Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite.”) (Emphasis added.)

Applicants contend that the prepreg of the present invention would be understood by one of skill in the art to be a fibrous material impregnated with the claimed resin and therefore the claims are not insolubly ambiguous. Accordingly, the rejection for indefiniteness should be withdrawn.

With respect to the rejection for claim 3 for failing to specify a unit, applicants contend that one of skill in the art, a polymer chemist or materials scientist, would understand what is meant by a polyol with an average molecular weight of from 100 to 550, and this is not an insolubly ambiguous term. As evidenced by the attached Appendix 2, the unit of molecular weight, called the unified atomic mass unit or Dalton, in current scientific literature is not commonly used because the atomic mass unit is implied and readily understood by one of skill in the art. See attached Appendix 2, definition of atomic mass unit taken from the Wikipedia website. In order to further evidence that the one of skill in the art would understand the meaning of molecular weight without units of measurement, applicants attach Appendix 3, a journal abstract from Pubmed that gives a molecular weight without units of measurements as well as two US patents, as appendices 4 and 5, wherein the claims recite polyols in a ranges of molecular weights, without units of measurement. See Appendix 4 US 5,349,040 claims 1 and 2 and Appendix 5 US 4,551,518 claim 4.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-6 and 43-48 remain rejected as being obvious over Dexheimer (US 6,706,844) in view of Uchida (US 5,545,697) and claims 1-6 and 43-48 are rejected as obvious over Fujino (US 6,339,199) and Shimizu (EP 367,014). In response to these rejections, applicants wish to note that cured products under the conditions to produce prepreps by curing will melt again at higher temperatures. These melted products will

proceed to be cured and bridging reactions will also proceed. Eventually, the finally cured products will never melt again. Such irreversible property in terms of melting is entirely different from common thermoplastic resins as disclosed in the cited references. Besides, the elasticity of a prepreg in accordance with the present invention can be reduced drastically by heating at a temperature higher than T_g (that of before melting). This will lead to an excellent shape memory property. These are physical properties of the present invention that are given by the process of making itself, and not taught or suggested by the prior art. Therefore, the present invention is not obvious over the cited references and the rejections for obviousness should be withdrawn.

Regarding the language of “wherein the prepreg is obtained by carrying out semi-curing while keeping the matrix resin composition at a temperature lower from the curing temperature by at least 10°C ,” Applicants present as evidence a Declaration under 37 CFR 1.132 by Mr. Noriya Hayashi, a co-inventor of this present invention. See Appendix 6.

Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

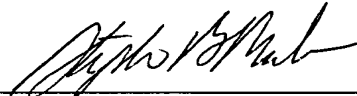
The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date: July 10, 2007

By



FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 672-5300
Facsimile: (202) 672-5399

Stephen B. Maebius
Attorney for Applicants
Registration No. 35,264